

TAKEUCHI et al  
Appl. No. 09/440,137  
DRAFT

### REMARKS/ARGUMENTS

Applicants have amended their claims to revert to the substance of the claims at the time when March Action (Paper No. 32) was issued (hereinafter referred to as March Claims); some formal amendments are made.

Correlation between new set of claims and March Claims is as follows:

New Claims	March Claims
36	23
37	24
38	25
39	26
40	27
41	28

As background, the March Action states:

"Claims 23-25 are rejected under 35 USC §102(b) as being anticipated by Cain (5,681,608).

Cain discloses a fat product composed of unsaturated long chain fatty acids and medium chain fatty acids (see abstract) in amounts that fall within the range that is set forth in the claims. The product is made from the interesterification of fats (column 3, lines 16-23). Diglycerides are included as reactants in the process of making the product."

Applicants responded by explaining (1) the compositional feature of the present invention lies in constituents (a), (b) and (c) recited in new claim 36 corresponding to claim 23, and, in new claim 38 corresponding to claim 25, constituent (d) is included as a featured additive.

Constituents (a) and (b) bring about, in cooperation, the effect of less accumulation as body fat (see page 1, lines 7-10, page 6, lines 18-25 of the specification; this effect is demonstrated in Example 8).

TAKEUCHI et al

Appl. No. 09/440,137

DRAFT

Constituent (c) provides the stability in low temperatures of the oil or fat composition (see page 7, lines 8-16 of the specification; this effect is demonstrated in Example 9).

Constituent (d) serves to inhibit smoking and foaming at cooking using the oil or fat composition (see page 6, lines 28 to page 7, line 7 of the specification; this effect is demonstrated in Example 9).

Cain's abstract discloses a triglyceride composition containing 1 to 95% by weight of  $M_2L$ . This  $M_2L$  content overlaps with constituent (b) of the present invention. Another constituent of the triglyceride composition is 5 to 65% by weight of  $ML_2$ ;  $L$  is a  $C_{18}$  unsaturated fatty acid, and thus the triglyceride composition of Cain satisfies constituent (c) of the present invention. However, Cain does not disclose nor suggest constituent (a) of the present invention, and in the sole example, "the proportion of medium-chain fatty acids to all the fatty acids as constituents of the oil or fat composition" on "product (SF-2)" is calculated at 28.1% by weight from the table in column 4. From this it is apparent that the triglyceride composition of Cain does not satisfy constituent (a) of the present invention.

The effect of Cain's triglyceride composition is to improve digestibility. This digestibility is measured by the rate of the hydrolysis of a triglyceride composition (column 3, lines 44 to 59). The first effect of the oil or fat composition of the present application is to provide less accumulated as body fat, and this effect is demonstrated by actually measuring the visceral fat and subcutaneous fat through an experiment using an animal (Example 8, particularly Table 6). Good digestibility is not the same as reduced accumulation as body fat. In fact, good digestibility has nothing to do with less accumulation as body fat. This is because where a particular food is less accumulated or not is a problem after it was digested.

Therefore, from both of the composition aspect and the aspect of the desired effect of the present invention, the invention of the present application is not anticipated by Cain.

TAKEUCHI et al

Appl. No. 09/440,137

DRAFT

The March Action also included a lack of patentability ("obviousness") rejection which stated,

"Claims 26 and 28 are rejected under 35 USC §103(a) as being unpatentable over Cain (5,681,608).

Cain discloses a fat product composed of unsaturated long chain fatty acids and medium fatty acids (see abstract) in amounts that fall within the range that is set forth in the claims. The product is made from the interesterification of fats (column 3, lines 16-23). Diglycerides are included as reactants in the process of making the product. Although the specific amount of diglyceride that is indicated in claim 26 is not specifically mentioned in the references, one of ordinary skill in the art would have expected that an amount of unreacted diglyceride would have remained in the fat product. Also at column 3, lines 4-11 the use of the product in food products, like emulsions and infant formulas is contemplated. Food products that include both water and oil in them typically contain emulsifiers and mono- and diglycerides are well known emulsifiers. Also the inclusion of vitamin E in a food product, especially infant formula, would have been an obvious addition to the product in order to meet the dietary needs of the consumer."

The same points and deficiencies in Cain hold true against the obviousness rejection as well. As explained above Cain does not anticipate the invention of the present application. Therefore, even if a diglyceride or a monoglyceride or vitamin E is incorporated into the triglyceride composition of Cain, the present invention is not reached. Thus, new claims 39 and 41 corresponding to claims 26 and 28 are patentable over Cain.

The rejections based upon Cain by itself were withdrawn in the current Action, Paper No. 38.

Applicants now address the single prior art-based rejection in Paper No. 38. Claim 35 is indicated to be free of the prior art.

TAKEUCHI et al

Appl. No. 09/440,137

DRAFT

Correlation between new set of claims and the March Claims is as follows:

New Claims	March Claims
36	29
37	30
38	31
39	none
40	32
none	33
none	34
41	35

The current (August) Action says:

"Claims 29-34 are rejected under 35 USC §103(a) as being unpatentable over Baer et al (5,308,640) in view of Cain (5,681,608) and as further evidenced by Chirafisi (4,269,864) or Suwa (5,378,484).

Baer (5,308,640) discloses low greasiness French fries that are fried in oil. At Table 1, samples C and E, reduced calorie fats are shown to contain liquid SPE, solid SPE and medium chain triglyceride. The liquid SPE are defined at column 6, lines 3-38 to include sucrose fatty acid esters and sorbitol fatty acid esters. These liquid SPE's are used in the amount in Table 1. The claims appear to differ from the reference in the suggestion of a particular medium chain triglyceride. Cain teaches a fat product composed of unsaturated long chain fatty acids and medium chain fatty acids (see abstract) in amounts that fall within the range that are set forth in the claims. The product is made from the interesterification of fats (column 3, lines 16-23). It would have been obvious to one having ordinary skill in the art to utilize the MCT of Cain in the oil composition of Baer in order to provide for nutrient fat that can be used as a table oil.

The MCT of Cain is one of a variety of MCT oils that could have been used as table oil in Baer in order to provide for an oil that is suitable for frying. It is appreciated that the oil of Baer is not disclosed to have enhanced antifoaming but the liquid SPE of Baer

TAKEUCHI et al  
Appl. No. 09/440,137  
DRAFT

are also well known emulsifiers in foods. These emulsifiers are also well known anti-foaming agents (see column 6, lines 43-55 of Chirafisi and column 3, lines 47-67 of Suwa (5,378,484). Thus even though there is no disclosure in Baer as to the use of the liquid SPE's as anti-foaming agents, this anti-foaming property would have been inherent to the use of a liquid SPE in Baer."

The rejection is not fairly based on the applied prior art and the reasons given in support for it are incorrect. Although the examiner refers to "Cain's MCT, a closer examination will reveal Cain does not disclose MCT. "MCT" means medium chain triglyceride as described in column 13, lines 7 to 23 of Baer. Therefore, what is meant by the assertion "It would have been obvious to one having ordinary skill in the art to utilize the MCT of Cain in the oil composition of Baer" is unclear as there is no basis in Cain for making such a statement.

Further, since, in Fat Composition C and Fat Composition E in Table I of Baer, to which the examiner refers, the amounts of liquid SPE used are large (76.0% and 85.5% of the whole Fat Composition, respectively), thus even if it were possible to use "Cain's MCT" in place of the "medium chain triglyceride", the invention of the present application could not have been reached. This is because liquid SPEs are liquid sucrose polyesters, and, in the present invention, the proportion of sucrose fatty acid esters is at most only 6% of the whole oil or fat composition.

Furthermore, there is no description nor suggestion in Baer regarding constituents (a), (b) and (c), or the constituents (a), (b), (c) and (d), and in particular effects obtained from them in the invention of the present application. There is no suggestion in Cain either as to constituents (a), (b) and (c), nor constituents (a), (b), (c) and (d), much less any idea of the desirable effects obtained therefrom in the invention of the present application. Therefore, even if both Cain and Baer were combined, under the teachings of Chirafisi and Suwa which only show that the liquid SPEs of Baer "are also well known anti-foaming agents", one skilled in the art could never have reached the present invention.

TAKEUCHI et al  
Appl. No. 09/440,137  
DRAFT

As apparent from the above, the invention of the present application is not unpatentable over Baer et al in view of Cain and as further evidenced by Chirafisi or Suwa, and therefore this rejection under 35 USC §103(a) should be withdrawn.

Reconsideration and favorable action are solicited.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_

Arthur R. Crawford  
Reg. No. 25,327

ARC:eaw  
1100 North Glebe Road, 8th Floor  
Arlington, VA 22201-4714  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100